



CHARLESTON AIR FORCE BASE

ECONOMIC IMPACT ANALYSIS FISCAL YEAR 2002





The 437th Airlift Wing Vision:

***Charleston Warriors: Simply the Best at providing
Agile Combat Support for America***

Our Mission:

***Dedicated Professionals working together to Support, Train, and
Deliver world-class airlift from our Nation's premier Air Force Base***

Our Goals:

***SAFETY FIRST: Everyday, Everywhere, Every Mission –
Balancing Risk with Operational Necessity.***

***WARRIOR SPIRIT: Everyone, Everyday–Anticipating and
Preparing for Future Missions.***

***FAMILY: Our Foundation–Supporting each other–
Inseparable in the Fight.***

Executive Commitment:

The 437th Airlift Wing takes pride in our people, our mission, and our many accomplishments. The members of "Team Charleston" are absolute professionals dedicated to defending our Nation and our way of life.

Enclosed is the Charleston Air Force Base "Economic Impact Analysis" for Fiscal Year 2002. This analysis estimates the economic effect of Charleston AFB on the local community. The area includes Charleston, Dorchester, and Berkeley counties.

**BROOKS L. BASH, Colonel, USAF
Commander, 437th Airlift Wing**

TABLE OF CONTENTS

Preface	1
Table of Contents	2

PART I: BACKGROUND

Foreword	4
Methodology	5
Force Structure	6
Fact Sheets	7 - 9

PART II: WING ASSETS

Description of Capital Assets	12
Value of Resources	13

PART III: WING ECONOMIC IMPACT

Personnel by Classification and Housing Location	16
Annual Payroll by Classification and Housing Location	17
Expenditures for Construction, Services, and Procurement	18
Estimate of Number and Dollar Value of Indirect Jobs Created	19
Total Annual Economic Impact Estimate	20
Graphical Representation of Data	21- 25

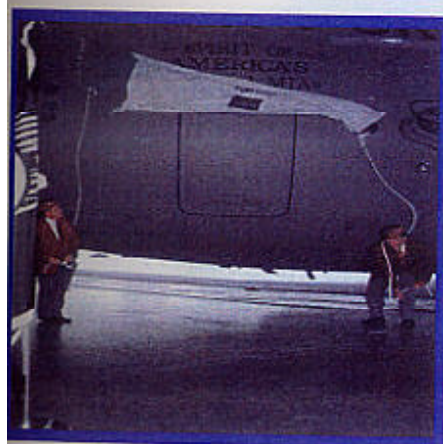
PART IV: MISCELLANEOUS INFORMATION

Organizations	28
Tenants	29



PART I

BACKGROUND



FOREWORD

CHARLESTON AIR FORCE BASE ECONOMIC IMPACT ANALYSIS FISCAL YEAR 2002

Charleston AFB's primary mission is airlift--professionals working together to support, train and provide the world's best airlift force for America. The base is also home of the 315th Reserve Airlift Wing. In addition, there are several tenant units, some directly supporting the base, and others carrying out their own missions using Charleston facilities.

Approximately 3,739 individuals live on Charleston AFB in the 1,352 family housing units and seven dormitories provided for members and their families.

Charleston's workforce consists of 7,842 military members and civilian employees. Approximately 3,709 are active duty, 2,742 are Air Force Reserve, one is Foreign Military, and 1,390 are civilian employees. Civilian employees are divided into three major categories: Wage Grade employees, General Schedule Civil Service employees, and Non-Appropriated Fund employees (included in the non-appropriated numbers are private businesses; i.e., Base Exchange, Commissary, and Nations Bank).

The economic impact of Charleston AFB on the local area was approximately \$549.6 million last fiscal year. This amount represents wages and salaries of all military and civilian employees. Also included are local contracts and construction expenditures, educational aid, and Base Exchange/Commissary contracts.

METHODOLOGY

The total economic impact of a base on its economic area is computed by summing annual base payroll, annual base expenditures, and the estimated dollar value of indirect jobs created. An economic area is generally defined as a Metropolitan Statistical Area (MSA). The indirect job multipliers for Air Force installations list Charleston AFB as the Charleston-North Charleston SC MSA. The average annual pay for the local area was obtained from the Charleston Chamber of Commerce, using South Carolina Employment Security Commission Labor Market Information Division data. The 2002 pay scale was prepared using a Secretary of the Air Force / Directorate of Economics and Business Management (SAF/FMCE) program that was developed within the parameters of the Office of Secretary Defense's economic impact analysis model. The funding sources used in this analysis are Appropriated Funds (APF) and Non-Appropriated Funds (NAF).

* * * * *

AVAILABILITY OF INFORMATION

This Economic Impact Analysis (EIA) provides unclassified key information about the resources and economic impact of Charleston AFB on the surrounding communities. Release of this document to non-military individuals must be obtained from the Public Affairs Office at Charleston AFB SC (843) 963-5536, or DSN 673-5536. It can also be accessed on https://www.charleston.af.mil/chasweb/faqs/impact/economic_impact.htm. Questions concerning the content of this analysis should be directed to the Public Affairs Office.

Information contained in this analysis is current as of 30 September 2002. This analysis was prepared by Leslie L. Carlton GS-9, 437 CPTS/FMA, front cover top graphic designed by TSgt Richard Kaminsky, 437 CS/SCSV, and base photographs provided by SSgt Corey Clements, 437 CS/SCSV.

FORCE STRUCTURE As of 30 Sep 02

Aircraft Type

C-17

#Assigned

43



FACT SHEET

C-17 Globemaster III



Mission

The C-17 Globemaster III is the newest, most flexible cargo aircraft to enter the airlift force. The C-17 is capable of rapid strategic delivery of troops and all types of cargo to main operating bases or directly to forward bases in the deployment area. The aircraft is also able to perform tactical airlift and airdrop missions when required. The inherent flexibility and performance characteristics of the C-17 force improve the ability of the total airlift system to fulfill the worldwide air mobility requirements of the United States.

The ultimate measure of airlift effectiveness is the ability to rapidly project and sustain an effective combat force close to a battle area. Threats to U.S. interests have changed in recent years, and the size and weight of U.S.-mechanized firepower and equipment have grown in response to improved capabilities of potential adversaries. This trend has significantly increased air mobility requirements, particularly in the area of large or heavy outsized cargo. As a result, newer and more flexible airlift aircraft are needed to meet potential armed contingencies, peacekeeping or humanitarian missions worldwide. The C-17 was designed and built with this new world order in mind.

Features

The operational requirements impose demanding reliability and maintainability of the C-17 system. These requirements include an aircraft mission completion success probability of 92 percent, only 20 aircraft maintenance man-hours per flying hour, and full and partial mission capable rates of 74.7 and 82.5 percent respectively. The Boeing warranty assures these figures will be met.

The C-17 measures 174 feet (53 meters) long with a wingspan of 169 feet, 10 inches (51.76 meters). Four fully reversible Pratt & Whitney F117-PW-100 engines (the commercial version is currently used on the Boeing 757) power the aircraft. Each engine is rated at 40,440 pounds of thrust. The thrust reversers direct the flow of air upward and forward to avoid ingestion of dust and debris. Maximum use has been made of off-the-shelf and commercial equipment, including Air Force-standardized avionics.

The aircraft is operated by a crew of three (pilot, copilot and loadmaster), reducing manpower requirement risk exposure, and long-term operating costs. Cargo is loaded onto the C-17 through a large aft door that accommodates military vehicles and palletized cargo. The C-17 can carry virtually all of the Army's air-transportable equipment.

Maximum payload capacity of the C-17 is 169,000 pounds (76,657 kilograms), and its maximum gross takeoff weight is 585,000 pounds (265,352 kilograms). With a payload of 160,000 pounds (72,575 kilograms) and an initial cruise altitude of 28,000 feet (8,534 meters), the C-17 has an unrefueled range of approximately 2,400 nautical miles. Its cruise speed is approximately 540 knots (0.73 Mach). The C-17 is designed to airdrop both equipment and 102 paratroopers.

The design of the aircraft lets it operate through small, austere airfields. The C-17 can take off and land on runways as short as 3,000 feet (914.4 meters) and as narrow as 90 feet (27.4 meters) wide. Even on such narrow runways, the C-17 can turn around using a three-point star turn and its backing capability.

Background

The C-17 made its maiden flight on September 15, 1991, and the first production model was delivered to Charleston AFB SC, on June 14, 1993. The 17th Airlift Squadron, the first squadron of C-17s, was declared operationally ready January 17, 1995. The Air Force is programmed to receive a total of 120 C-17s by the year 2005. The bulk of the inventory is at

Charleston AFB and McChord AFB WA. C-17s are also at Altus AFB OK, McGuire AFB, NJ, and an Air National Guard unit at Jackson MS.

Air Mobility Command operates the aircraft with current operations at the 437th Airlift Wing and the 315th Airlift Wing (Air Force Reserve) along with the 62nd Airlift Wing at McChord AFB.

General Characteristics

Primary Function: Cargo and troop transport

Prime Contractor: Boeing Company

Engines: Four Pratt & Whitney F117-PW-100 turbofan engines

Thrust: 40,440 pounds, each engine

Wingspan: 169 feet 10 inches (to winglet tips) (51.76 meters)

Length: 174 feet (53 meters)

Height: 55 feet 1 inch (16.79 meters)

Cargo Compartment: length: 88 feet (26.82 meters);

Width: 18 feet (5.48 meters);

Height: 12 feet 4 inches (3.76 meters)

Speed: 540 knots (Mach 0.73)

Service Ceiling: 45,000 feet at cruising speed (13,716 meters)

Range: Global with in-flight refueling

Crew: Three (two pilots and one loadmaster)

Max Takeoff Weight: 585,000 pounds (265,352 kg)

Operating Weight: 276,000 pounds (125,192 kg)

Max Payload: 169,000 pounds (76,657 kg)

Takeoff/Landing Distances: 7,740 feet (2,359 m) at max gross weight
3,000 feet (914.4 m) with 160,000 pounds
(72,575 kg) load

Load: 102 troops/paratroopers; 48 litter and 54 ambulatory patients and attendants; 170,900 pounds (77,519 kilograms) of cargo (18 pallet positions)



PART II

WING ASSETS



DESCRIPTION OF CAPITAL ASSETS

As of: 30 Sep 02

LAND

TOTAL ACRES: 6,486

TWO RUNWAYS

PRIMARY: 9,000 FEET X 200 FEET
SECONDARY: 7,000 FEET X 150 FEET

BUILDINGS

TOTAL: 1,167 4,882,745

FAMILY HOUSING UNITS

	2 - BR	3 - BR	4 - BR	TOTAL
Officer	0	103	45	148
Enlisted	201	817	186	1204
Total:	201	920	231	1352

DORMITORY QUARTERS

NUMBER CAPACITY

Airmen/NCO 7 587

TEMPORARY QUARTERS

NUMBER CAPACITY

Visiting Quarters	3	160 Bedspaces
Air Crew Alert Facilities	1	32 Bedspaces
Temporary Lodging Facilities	<u>10</u>	<u>178 Bedspaces</u>

Total: 14 370 Bedspaces

MISCELLANEOUS

Computers 4,821

Vehicles 636

VALUE OF RESOURCES

As of: 30 Sep 02

CAPITAL ASSETS

Buildings and Real Property	\$278,923,773
Land	<u>\$2,082,809</u>
Total:	\$281,006,582

WEAPONS SYSTEMS

Aircraft C-17 (43)	<u>\$14,405,000,000</u>
Total:	\$14,405,000,000

EQUIPMENT

Appropriated Fund	\$95,358,726
Non-appropriated Fund	\$8,346,413
Base Exchange	\$6,000,000
Commissary	<u>\$1,484,544</u>
Total:	\$111,189,683

INVENTORIES

Stock Fund	\$21,624,483
Sales Outlets	
Base Exchange	\$4,660,160
Commissary	\$751,790
NAF	<u>\$257,245</u>
Total:	\$27,293,678

RETAIL SALES

Base Exchange	\$26,790,968
Commissary	\$23,959,607
NAF	<u>\$3,738,438</u>
Total:	\$54,489,013

TOTAL VALUE OF RESOURCES

\$14,878,978,956



PART III

WING ECONOMIC IMPACT



**ECONOMIC IMPACT ANALYSIS
CHARLESTON AFB - FY02**

**TABLE 1
PERSONNEL BY CLASSIFICATION AND HOUSING LOCATION**

As of: 30-Sep-02

CLASSIFICATIONS	LIVING ON BASE	LIVING OFF BASE	TOTAL
1. APPROPRIATED FUND MILITARY			
Active Duty	1,305	2,404	3,709
Air Force Reserve	12 *	2,730	2,742
Foreign Military	1 **	0	1
TOTAL:	1,318	5,134	6,452
2. ACTIVE DUTY MILITARY DEPENDENTS	2,131	3,046	5,177
3. APPROPRIATED FUND CIVILIANS			
General Schedule			537
Federal Wage Grade			343
Seasonal, Temporary, and Overhires			52
		TOTAL:	932
4. NON APPROPRIATED FUND CONTRACT CIVILIANS AND PRIVATE BUSINESS			
Civilian NAF			223
Civilian BX			152
Civilian Commissary			78
Private Businesses on Base, By Type:			5
Branch Bank			
		TOTAL:	458
	TOTAL PERSONNEL:		13,019

* Reservists living on base are dependents of an active duty military living on base.

**British military occupying military housing (moved Dec 02)

**ECONOMIC IMPACT ANALYSIS
CHARLESTON AFB - FY02**

**TABLE 2
ANNUAL PAYROLL BY CLASSIFICATION AND HOUSING LOCATION**

As of: 30-Sep-02

CLASSIFICATION	LIVING ON BASE (\$)	LIVING OFF BASE (\$)	TOTAL (\$)
1. APPROPRIATED FUND MILITARY			
Active Duty	\$46,912,323	\$67,229,582	\$114,141,905
ANG/Reserve	<u>\$41,500 *</u>	<u>\$24,383,589</u>	<u>\$24,425,089</u>
TOTAL:	\$46,953,823	\$91,613,171	\$138,566,994
2. APPROPRIATED FUND CIVILIANS			
General Schedule			\$27,195,600
Federal Wage Grade			\$17,374,970
Seasonal, Temporary, and Overhires			<u>\$2,644,018</u>
		TOTAL:	\$47,214,588
3. NON-APPROPRIATED FUND CONTRACT CIVILIANS AND PRIVATE BUSINESS			
Civilian NAF			\$3,352,013
Civilian BX			\$2,535,259
Civilian Commissary			\$2,922,550
Private Businesses On Base, By Type:			
Dank of America			<u>\$120,641</u>
		TOTAL:	\$8,930,463
	TOTAL ANNUAL PAYROLL:		\$194,712,045

* Reservists living on base are dependents of an active duty military living on base.

**ECONOMIC IMPACT ANALYSIS
CHARLESTON AFB - FY02**

**TABLE 3
EXPENDITURES FOR CONSTRUCTION, SERVICES, AND PROCUREMENT OF
MATERIALS, EQUIPMENT, AND SUPPLIES**

As of: 30-Sep-02

		ACTUAL ANNUAL EXPENDITURES
1. CONSTRUCTION		
Military Construction Program		\$39,202,802
Non- Appropriated Fund		\$338,404
Military Family Housing		\$6,832,300
O & M		\$9,580,500
TWCF		\$6,546,000
	TOTAL:	\$62,500,006
2. SERVICES		
Service Contracts and Commodities *		\$23,392,298
Utilities		\$5,529,052
	TOTAL:	\$28,921,350
3. MATERIALS, EQUIPMENT, AND SUPPLIES PROCUREMENT		
Base Exchange (BX)		\$1,708,000
DECA (Commissary)		\$126,541
Health (TRIOARE, Government Cost Only)**		\$10,300,000
Education (Impact Aid [IA] and Tuition Assistance)		\$1,442,300
*IA - Berkeley County	\$76,860	
IA - Charleston County	\$297,528	
IA - Dorchester County	\$499,093	
Tuition Assistance	\$568,819	
* includes only AF dependents not all DoD dependents		
TDY (50,000 nights @ \$52 - using local hotels/motels)		\$2,600,000
TWCF Materials, Equipment & Supplies		\$149,128,966
Materials, Equipment & Supplies (not elsewhere included)		\$15,767,600
	TOTAL:	\$181,073,407
TOTAL ANNUAL EXPENDITURES:		\$272,494,763

* includes only contracts in the local economic area or contracts requiring the use of locally supplied goods and services.

**Health care provided to military and their dependents in Charleston, Dorchester, and Berkeley counties

**ECONOMIC IMPACT ANALYSIS
CHARLESTON AFB - FY02**

**TABLE 4
ESTIMATE OF NUMBER AND DOLLAR VALUE OF INDIRECT JOBS CREATED**

As of: 30-Sep-02

Type of Personnel	# of Base Jobs	Multiplier	# of Indirect Jobs
ACTIVE DUTY MILITARY	3,709	0.41	1,521
RESERVE/ANG/TRAINEEES	2,742	0.16	439
APF CIVILIANS	932	0.55	513
NAF CIVILIANS, BX, AND PRIVATE BUSINESS	<u>458</u>	<u>0.55</u>	<u>252</u>
TOTAL:	7,841		2,724

ESTIMATED NUMBER OF INDIRECT JOBS CREATED: 2,724

AVERAGE ANNUAL PAY FOR THE LOCAL COMMUNITY: \$30,254

ESTIMATED ANNUAL DOLLAR VALUE OF JOBS CREATED: \$82,411,896

Data Sources:

Multipliers: Logistics Management Institute Economic Impact Database, Installations and Indirect / Induced Job Multipliers, Feb 95. Remained the same as last year.

Average Annual Pay: Current tables for Average Annual Pay Levels in Metropolitan Areas and Average Annual Pay by State and Industry are accessible at: <http://stats.bls.gov/bls/newsrels.htm>

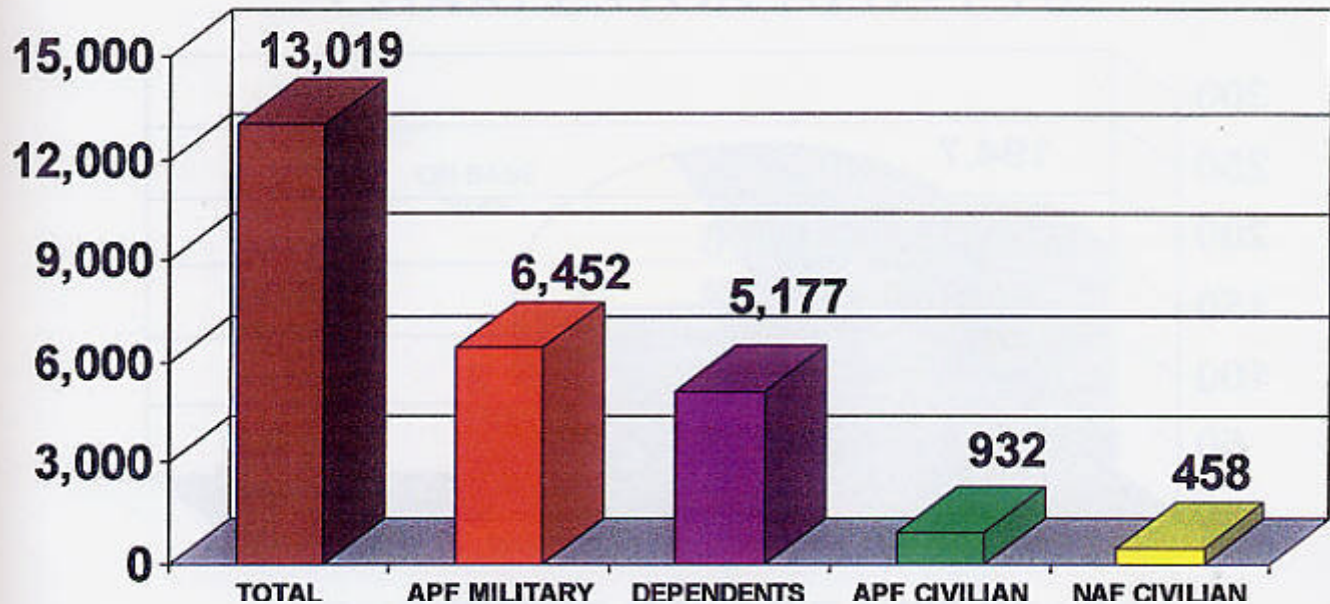
**ECONOMIC IMPACT ANALYSIS
CHARLESTON AFB - FY02**

**TABLE 5
Total Annual Economic Impact Estimate**

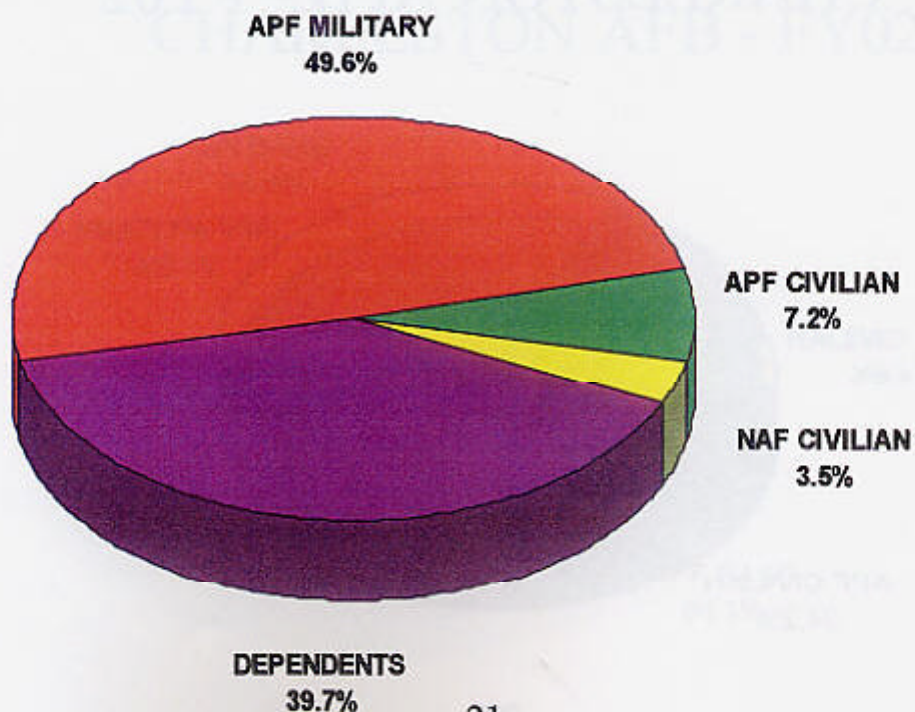
As of: 30-Sep-02

ANNUAL PAYROLL:		\$194,712,045
Military	\$138,566,994	
Federal Civilian	\$47,214,588	
NAF Civilians, BX, and Private Business	\$8,930,463	
ANNUAL EXPENDITURES:		\$272,494,763
ESTIMATED ANNUAL DOLLAR VALUE OF JOBS CREATED:		\$82,411,896
Estimated Indirect Jobs Created	2,724	
Average Annual Pay	\$30,254	
GRAND TOTAL		\$549,618,704

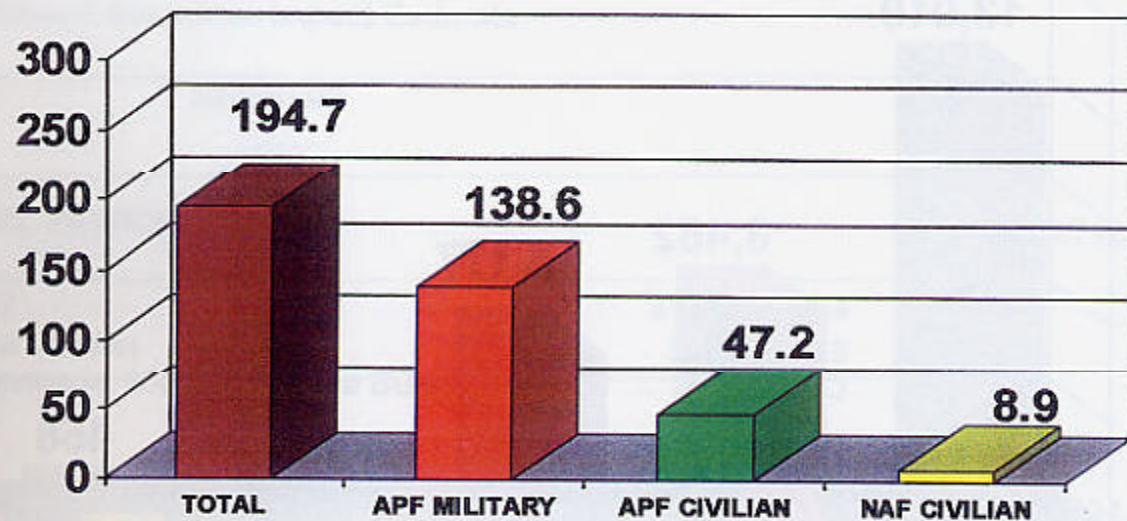
PERSONNEL SUMMARY CHARLESTON AFB - FY02



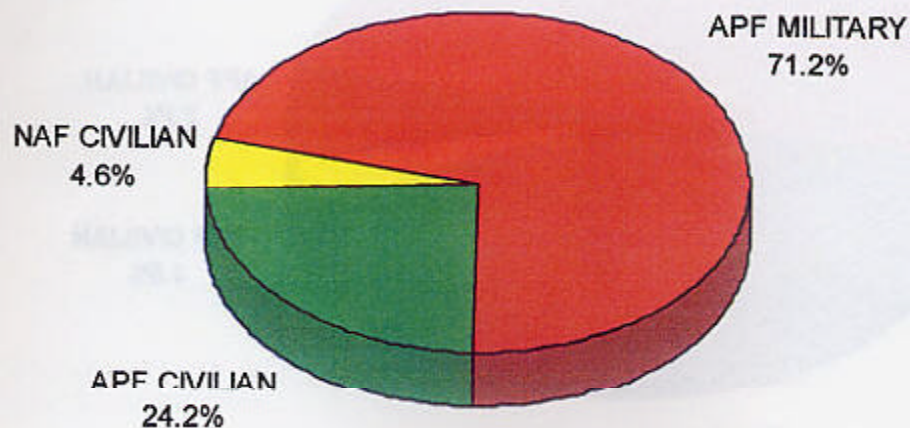
PERSONNEL SUMMARY BY PERCENT CHARLESTON AFB - FY02



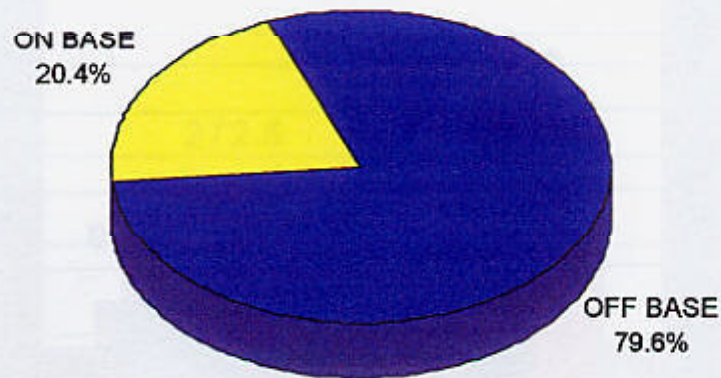
ANNUAL PAYROLL SUMMARY (\$M) CHARLESTON AFB - FY02



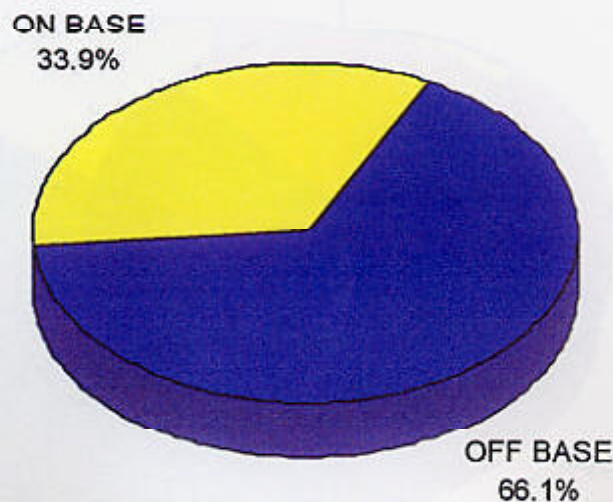
ANNUAL PAYROLL BY PERCENT CHARLESTON AFB - FY02



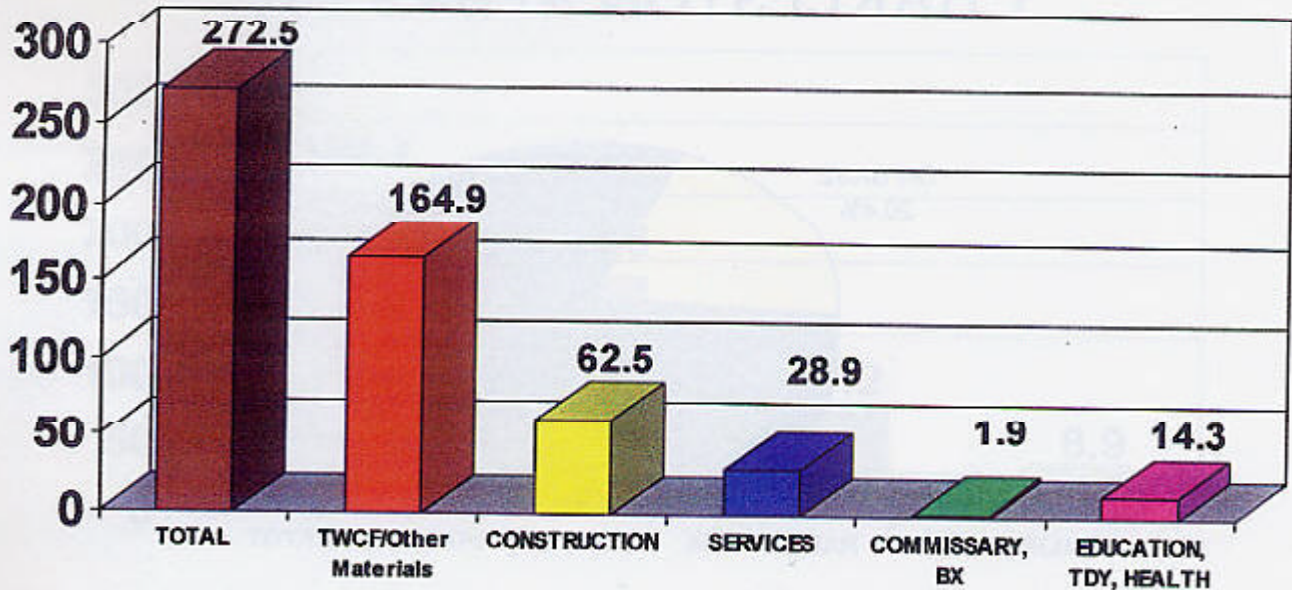
PERCENT OF APF MILITARY PERSONNEL LIVING ON AND OFF BASE CHARLESTON AFB - FY02



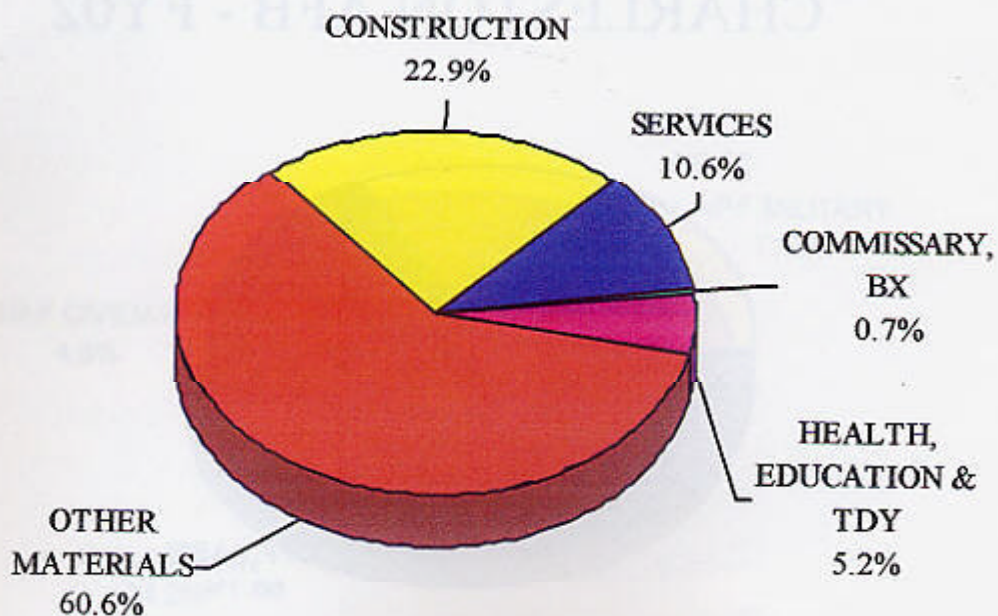
PERCENT OF APF MILITARY PERSONNEL PAYROLL ATTRIBUTABLE TO PERSONNEL LIVING ON AND OFF BASE CHARLESTON AFB - FY02



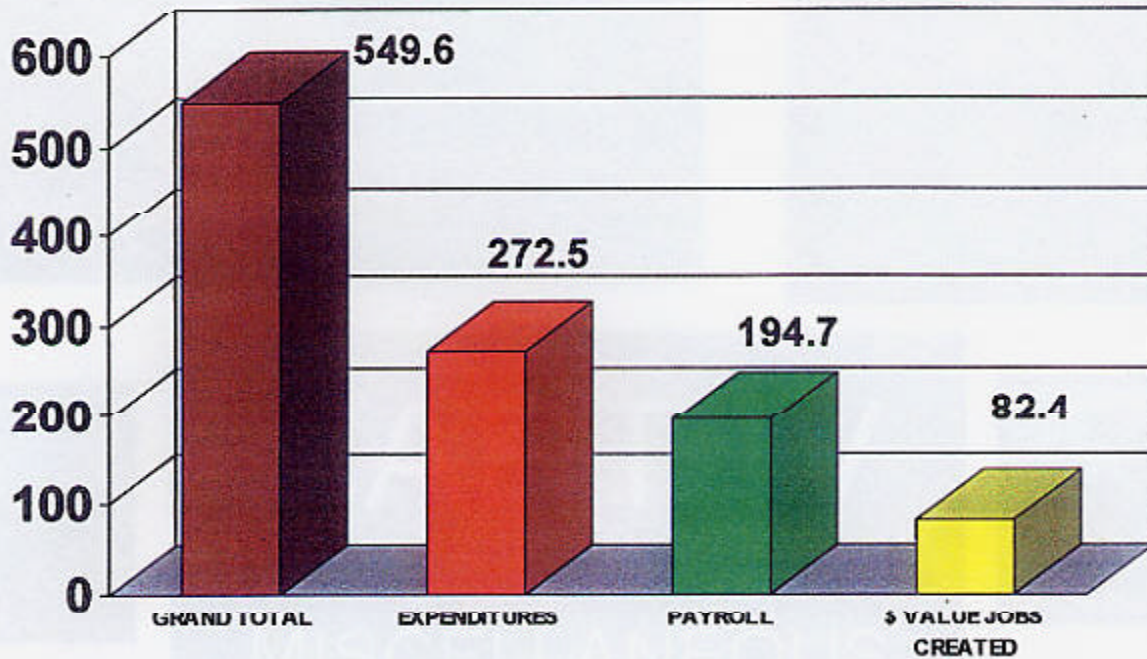
ANNUAL EXPENDITURE SUMMARY (\$M) CHARLESTON AFB - FY02



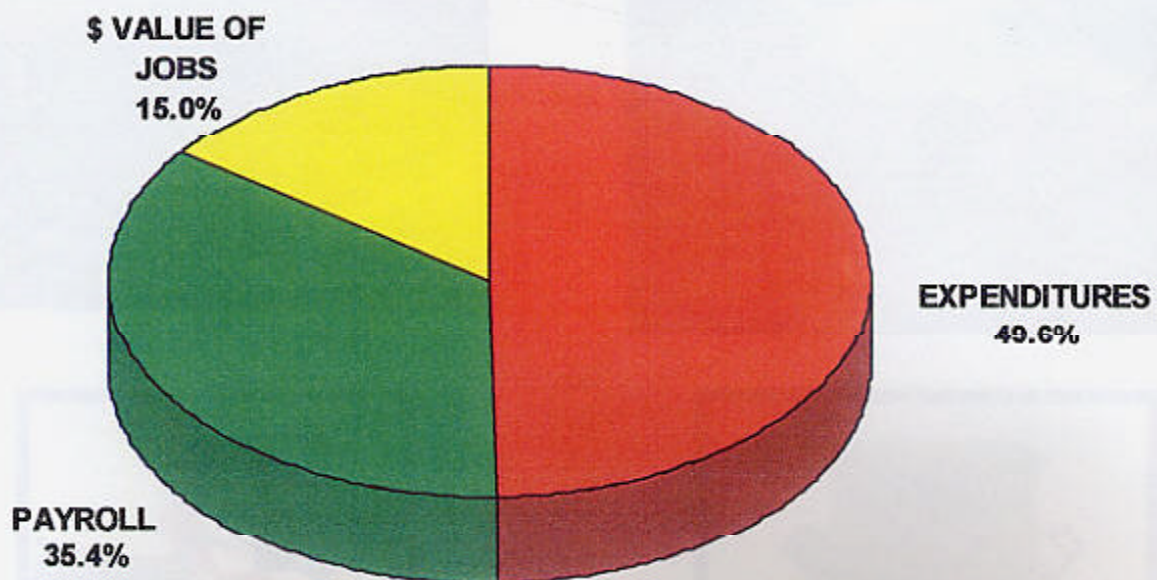
ANNUAL EXPENDITURES BY PERCENT CHARLESTON AFB - FY02



TOTAL ECONOMIC IMPACT (\$M) CHARLESTON AFB - FY02



TOTAL ECONOMIC IMPACT BY PERCENT CHARLESTON AFB - FY02





PART IV

MISCELLANEOUS INFORMATION



ORGANIZATION

COMMAND

HOST: 437th Airlift Wing

AMC

437th Airlift Wing Staff Offices

AMC

Commander / Vice Commander

Command Chief Master Sergeant

Director of Staff

Command & Control

Chaplain

Comptroller Squadron

Historian

Inspector General

Manpower & Quality

Plans & Programs

Protocol

Public Affairs

Safety Office

Military Equal Opportunity

Staff Judge Advocate

Retiree Activities Office

Wing Administration

437th Maintenance Group

AMC

Aircraft Maintenance Squadron

Maintenance Squadron

Maintenance Operations Squadron

437th Medical Group

AMC

Aerospace Medicine Squadron

Medical Operations Squadron

Dental Squadron

Medical Support Squadron

437th Operations Group

AMC

Operations Support Squadron

14th Airlift Squadron

15th Airlift Squadron

16th Airlift Squadron

17th Airlift Squadron

ORGANIZATION

COMMAND

437th Mission Support Group	AMC
Civil Engineer Squadron	
Communications Squadron	
Mission Support Squadron	
Security Forces Squadron	
Services Squadron	
Contracting Squadron	
Aerial Port Squadron	
Logistics Readiness Squadron	

TENANT ORGANIZATION

1st Combat Camera Squadron	AMC
315th Airlift Wing - Air Force Reserve	AFRES
412th Logistics Support Squadron	AFMC
Air Force Audit Agency	AFAA
Air Force Office of Special Investigations Detachment 310	AFOSI
American Federation Government Employees Local 1869	AFGE
American Red Cross	ARC
Area Defense Counsel	AFLSA
Army Air Force Exchange Service	AAFES
Defense Commissary Agency	DcCA
Defense Courier Service	DCF
Detachment 1, 33rd Flight Test Squadron	AMC
Detachment 1, 158th Fighter Wing	ANG
Detachment 5, 373 Training Squadron	AETC
US Postal Service	USPS
AF ROTC Det 772 (Chas Southern Univ)	ROTC
Civil Air Patrol: Coastal-Charleston Composite SQ	
US Navy Construction	NAVY
Southeast Air Defense Sector	SEADS
Boeing C-17 Field Service	
Boeing C-17 Recovery & Modifications	
United Airlines	
Pratt & Whitney	
Document Automation and Production Service	DAPS